



Original Article

## Production and Marketing Flows of Coconut Trees at PT. Abeadi Grup, Terengganu, Malaysia

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**Abstract:** Today, Coconut trees have become an essential natural resource for many communities in Indonesia, especially in the context of sap production. This study discusses SAP's production and marketing flows from coconut trees at PT Abeadi Group, one of the industrial companies in Terengganu, Malaysia. The case study approach is used to understand sap water's production and marketing process and identify findings that can improve efficiency and product quality. The research results show that PT Abeadi Group has implemented steps to maintain sustainable production and marketing flows, including using advanced technology, collaborating with local farmers, and expanding local markets. However, production cost analysis shows that marketing margins can be negative, indicating the need to review cost structures and strategies. Therefore, recommendations are made to optimize production costs, adjust selling prices, and explore alternative marketing strategies to ensure optimal profits and business sustainability for PT Abeadi Group in the long term.

**Keywords:** Production flow; Marketing flow; SAP; Marketing strategies; Production cost



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### 1. Introduction

Coconut trees have become an essential natural resource for many communities in Indonesia, especially in the context of sap production (Widodo & Anhar, 2021). Production costs represent a major financial expense for manufacturing companies, requiring managerial oversight to organize and streamline these costs logically and methodically to ensure their efficiency and effectiveness (Ningsih & Zakiah, 2021). PT Abeadi Group is one of The companies operating in this industry; the production and marketing flow of sap from coconut trees is the main focus of this research; a deep understanding of this process is the key to increasing production efficiency and ensuring the quality of the product's production. PT. Abeadi Group continues to develop technological innovations to increase efficiency in the sap production process from coconut trees. By utilizing the latest technology, such as automatic processing systems and sophisticated use sensors, companies can speed up the process of harvesting and processing sap water. In addition,

using this technology also helps maintain product consistency and cleanliness, which is an essential factor in maintaining quality and sustainability in the market.

The company works closely with local coconut farmers to ensure a sustainable and responsible supply of raw materials. In addition, they also pay attention to environmentally friendly practices at every stage of production and distribution, including using recyclable packaging and reducing waste. Apart from focusing on the domestic market, PT Abeadi Group also directs its efforts to expand the international market. By utilizing an extensive distribution network and understanding of global consumer needs, the company can expand its market share to various countries. They also diversify their products by developing various variants and packaging to meet various consumer preferences. It helps increase the company's revenue and strengthens its position in the market as a leading manufacturer in the sap water industry. The sap water industry from coconut trees has a significant role in the Indonesian economy (Mustaqimah & Suhud, 2023). PT Abeadi Group is one of the companies that supply these products to local and international markets. A comprehensive understanding of production and marketing flows is crucial to remain competitive and meet growing market demands.

Producing sap water from coconut trees involves several steps, from harvesting the sap water to packaging the finished product (Hasbia & Erni Firdamayanti, 2023). PT Abeadi Group uses advanced technology and methods to ensure that every stage in the production flow is carried out efficiently and meets the specified quality standards. This in-depth analysis of each step in the production process will provide valuable insights to increase productivity and efficiency. After production, sap water must be marketed appropriately to reach consumers. Iswahyudi et al. (2023) said the adequate marketing flow involves appropriate distribution, promotion, and pricing strategies. PT Abeadi Group pays attention to local and global market needs when designing optimal marketing strategies. Analysis of this marketing flow will help companies adjust their strategies according to the changes in market dynamics. Researching the production and marketing flow of sap from coconut trees at PT Abeadi Group is essential in optimizing company operations and increasing industrial competitiveness. With a better understanding of each stage in this process, companies can identify areas for improvement and implement more effective strategies. It will help PT. Abeadi Group maintain its position in the market and significantly contribute to the sap water industry.

## 2. Materials and Methods

This research uses a case study approach to gain an in-depth understanding of palm juice production and marketing process from coconut trees at PT Abeadi Group. The research team will collect data from various sources, including interviews with production, marketing, and company operations managers, direct observation of the production process, and analysis of related documents such as financial reports and marketing strategies. Direct observation of the production and marketing process was carried out to collect data about the steps taken in each stage of the production and marketing flow. The research team will record every detail about the process, including the equipment used, the methods applied, the time required, and any problems or obstacles that may arise. The collected data will be analyzed qualitatively to identify patterns, trends, and findings during the sap water's production and marketing flow. This analysis will involve grouping data, looking for relationships between observed variables, and interpreting findings relevant to the research objectives.

In-depth interviews were conducted with various related parties, including the production of sap water's production and the marketing of flowers, and even for consumers. This interview aims to obtain diverse perspectives on the production and marketing processes and understand the challenges, opportunities, and strategies PT Abeadi Group used in its operations. Data collected from interviews underwent processing to include eight variables derived from the analysis of research findings. SWOT analysis provides a comprehensive picture of a company's internal factors, especially its Strengths and Weaknesses, and external factors, such as Opportunities and Threats. These factors are arranged in a matrix format to develop the company's strategic plan (Nurdwitami, 2019). SWOT analysis consists of four factors, namely:

- Strengths are resilience attributes identified in current organizations, projects or business ideas.
- Weakness is a vulnerability factor detected in an established organization, project or business idea.
- Opportunities represent circumstances that are conducive to future growth. This situation indicates a possibility that originates from outside the organization, project, or business idea itself, such as from competitors, government regulations, or environmental factors.
- Threats are external conditions that pose a risk. These threats can potentially affect the organization, project, or business idea.

## 3. Results

The production process refers to the methodology and techniques used to convert labour, machines, materials, and funds into desired results. In contrast, self-production involves increasing the value of a

product or service (Barrania et al., 2019; Jiang et al., 2019; Thi Xuan Mai & Ottar Olsen, 2016). Based on the data provided, the research revealed several findings about the production and marketing flow of sap water from coconut trees at PT Abeadi Group:

### 3.1. Use of Chengal Wood Powder

In the production process of sap water, plastic containers are filled with chengal wood powder to slow down the decomposition process of the sap water, thus extending its shelf life. Chengal wood powder is applied after soaking in water to remove unwanted substances. Furthermore, chengal wood is dried for 3 days before the powder can be used.

### 3.2. Packaging Process

Packaging sends commodities to consumers in optimal and profitable conditions (Widiati, 2019). After the sap water is collected in 10-litre barrels, the packaging is done by filtering the sap water before putting it into bottles. The bottles are then placed in a freezer to be frozen before being sold to consumers. These steps are taken to ensure the hygiene and quality of the products produced before they reach the consumers.

### 3.3. Marketing Flow

A marketing strategy can be described as a comprehensive blueprint that outlines the operational framework necessary for a company to achieve its goals (West et al., 2015). According to Fifield (2012), marketing strategy is a fundamental tool to achieve a company's goals by developing sustainable competitive advantages. The marketing flow of nira water from PT Abeadi Grub can be done directly from producers to consumers at a price of around RM3 per bottle. In addition, there are also distribution channels through traders with different prices, namely RM5 from producers to traders and RM10 from traders to consumers. These marketing strategies reflect the company's diverse product distribution approaches to cater to various consumer preferences. Thus, from the results of this study, PT Abeadi Group implements specific steps in the production and marketing flow of sap water to ensure the quality and durability of the product, as well as to fulfil market needs with diverse marketing strategies. The calculation of the marketing margin for sap water from PT Abeadi Group per month:

**Table 1.** Marketing margin for sap water from PT Abeadi Group per month

Components	Total Cost (RM)
Seed cost	2000
Electric fence cost	1250
Root-keeping fertilizer cost	162.5
Dolomite cost	87.5
Water pump cost	1000
Irrigation pipe cost	1200
Labor cost	1000-1500
Soil cost	10000
Barbed wired cost	245

Total Cost of Production (Per acre)

= 2000 (Seeds) + 1250 (Electric Fence) + 162.5 (Root-keeping Fertiliser) + 87.5 (Dolomite) + 1000 (Water Pump) + 1200 (Irrigation Pipe) + 1000-1500 (Workers) + 10000 (Soil) + 245 (Barbed Wire)  
 = RM 16047.5 - RM 16547.5 (with labour salary)

Total sap water Production (Per Day)

= 1 liter/tree/day x 550 trees/6.5 acres  
 = 84.61 liters/eka/day

Total Juice Production (Per Bottle)

= 84.61 litres/eka/day / 250 ml/bottle  
 = 338.46 bottles/eka/day

Revenue (Per Day)

= 338.46 bottles/eka/day x RM3/bottle (direct price to consumers)

= RM1015.38/acres/day

Marketing Margin (Per Day)

= Revenue (Per Day) - Total Cost of

Production (Per Day)

= RM 1015.38/acres /day - RM 16047.5 - RM 16547.5 (with labour salary)

= RM -15032.12 - RM -15532.12 (with labour salary)

Thus, this study indicates that the marketing margin per day can be negative, mainly if production costs include labour salaries. Therefore, it is necessary to review the cost structure and marketing strategy to ensure optimal profit from selling sap water.

### 3.4. Production Cost Analysis

Production costs are costs charged in the production process during a period (Cooper & Kaplan, 1988). Meanwhile, according to Horngren et al. (2002), production costs are the expenditure of economic resources measured in units of money. First, it should be noted that the cost of producing sap water from PT Abeadi Grup is relatively high, with costs varying from seeds and farm infrastructure to operational expenses such as worker salaries and land costs. The total production cost per acre ranges from RM 16,047.5 to RM 16,547.5, depending on the workers' salaries, which range from RM 1000 to RM 1500 per month.

### 3.5. Production and Revenue

Despite high production costs, PT Abeadi Grup can produce a lot of sap water, reaching approximately 84.61 litres per acre or 338.46 bottles per eka per day. With a selling price of RM3 per bottle for direct sales to consumers, the revenue per day per eka reaches approximately RM1015.38.

### 3.6. Marketing Margin

However, when the marketing margin is calculated by subtracting the total production cost from the daily revenue, it is seen that the margin can become harmful. It is especially true if production costs include labour salaries, where marketing margins can reach significant negative values, ranging from -15032.12 to -15532.12 RM per acre per day.

## 4. Conclusions

This study concludes that PT Abeadi Group has taken steps to ensure that sap water's production and marketing flow from coconut trees runs efficiently and meets the set quality standards. Nonetheless, the production cost analysis revealed that the marketing margin can be harmful, mainly if the production cost includes workers' salaries. It suggests reviewing the cost structure and marketing strategy to ensure optimal profits from selling sap water. Companies must focus on developing sustainable strategies toward healthy business growth in sustainability and business development. It involves investing in technological innovation, environmentally friendly practices, and adjusting marketing strategies to meet evolving market needs. Thus, a comprehensive understanding of the sap water production and marketing flow will help PT Abeadi Group maintain its market position and significantly contribute to the sap water industry.

These results suggest that the cost structure and marketing strategy must be reviewed to ensure optimal profits from selling sap water. Possibilities for review include reducing production costs, adjusting selling prices, or exploring alternative marketing strategies to increase marketing margins and maintain business sustainability. In the long term, PT Abeadi Group must develop a sustainable strategy for healthy business growth. It involves not only paying attention to current profits but also considering factors such as investment in technological innovation, environmental sustainability, and customer satisfaction to ensure the company's long-term growth and success. PT Abeadi Group can consider several steps to improve its marketing margin and business sustainability. One of them is to evaluate the production cost structure further, considering operational efficiency and cost reduction at various stages of production. In addition, the company can explore opportunities to increase product-added value or diversify its product portfolio, expand market share, and create a sustainable competitive advantage in the sap water industry.

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